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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/936,563	09/14/2001	Gerard Mathis	LOM 24	7143
23599	7590	11/15/2005	EXAMINER	
MILLEN, WHITE, ZELANO & BRANIGAN, P.C. 2200 CLARENDON BLVD. SUITE 1400 ARLINGTON, VA 22201			TUNG, JOYCE	
		ART UNIT	PAPER NUMBER	
		1637		

DATE MAILED: 11/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/936,563	MATHIS ET AL.
	Examiner	Art Unit
	Joyce Tung	1637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 14 September 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-17 and 19-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-9, 13, 15, 17, 19-29, 33, 35-37 and 39 is/are rejected.
- 7) Claim(s) 10-12, 14, 30-32, 34, 38 and 40 is/are objected to.
 ¹⁶
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All
 - b) Some *
 - c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.

- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

The applicant's response filed 9/14/2005 to the Office action has been entered. Claims 1-17 and 19-40 are pending. The finality which was made by the Office action mailed 6/14/2005 is withdrawn in light of the new grounds of rejections.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 13-14, 17, 19, 33-34 and 39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
 - a. Claims 13-14, 33-34 and 39 are vague and indefinite because of the phrase "such as" in claim 13. It is unclear what is the hetero atom cited in the claim.
 - b. Claims 17 and 19 are vague and indefinite because of the phrase "the assay" which has no antecedent basis.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-9, 13, 15, 17, 20-29, 33, 35-37 and 39 are rejected under 35 U.S.C. 102(b) as being anticipated by Sessler et al. (US 5,559,207, issued September 24, 1996).

Sesseler et al. disclose a method of phosphate ester hydrolysis including using a texaphyrin metal complex (See the Abstract). The metal complex is covalently coupled with amine, thiol or hydroxyl linked oligonucleotides (See column 8, lines 5-9 or Fig. 3A-3C). The oligonucleotide is 5 to 50 nucleotides in length (See fig. 2B). The oligonucleotide is covalently bonded directly or via a spacer arm (See fig. 2B). The metal compound is europium cryptate (See column 3, lines 56-65). The tripyrrane dissolved to form a homogeneous orange solution, which turned to a fluorescent orange color (See column 10, lines 27-30).

Since there is no chemical structure cited for a rare-earth metal cryptate in the claims above, any chemical structure compound with the metal complex is interpreted as a rare-earth metal cryptate, the teachings of Sessler et al. anticipate the limitations of the claims.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sessler et al. (US 5,559,207, issued September 24, 1996) as applied to claims 1-9, 13, 15, 17, 20-29, 33, 35-37 and 39 above, and further in view of Zhao et al. (US 6,306,975, issued October 23, 2001).

The teachings of Sessler et al. are set forth in section 4 above. Sessler et al. do not disclose a fluorescent label comprising an acceptor fluorescent compound in an assay.

Zhao et al. disclose a rare earth metal complex used as a donor label in a non-radioactive energy transfer reactions assay and an acceptor, which is fluorescent label, is used in the assay (See column 26 lines 40-57).

One of ordinary skill in the art would have been motivated to apply a fluorescent label as an acceptor as taught by Zhao et al. because if europium cryptate is used as a donor in a non-radioactive energy transfer reactions assay, APC, a phycobiliprotein will be used as an acceptor, since the phycobiliprotein has high molar absorptivity at cryptate emission wavelength which provides high transfer efficiency (See column 26, lines 64-67 and column 27, lines 1-2). It would have been prima facie obvious to have a fluorescent label as an acceptor in the assay.

Allowable Subject Matter

7. Claims 10-12, 14, 16, 30-32, 34, 38 and 40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

Concerning claims 10-12, 14,16, 30-32, 34, 38 and 40, no prior art has been found teaching or suggesting the rare-earth metal cryptate is covalently bonded to an oligonucleotide.

The closest prior art is the reference of Sessler et al.. Sessler et al. disclose that the metal complex is covalently coupled with amine, thiol or hydroxyl linked oligonucleotides (See column 8, lines 5-9 or Fig. 3A-3C). However, the metal complex does not have the chemical structure as cited in claim 10.

Summary

9. No claims are allowable.
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joyce Tung whose telephone number is (571) 272-0790. The examiner can normally be reached on Monday - Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on 571 272-0782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Joyce Tung
November 2, 2005

Kenneth R. Horlick
KENNETH R. HORLICK, PH.D.
PRIMARY EXAMINER

11/9/05